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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/872,271	06/01/2001	James S. Prater	NSC.01US01	2608
27479	7590	10/03/2005	EXAMINER	
COCHRAN FREUND & YOUNG LLC			NGUYEN, DUNG X	
2026 CARIBOU DR			ART UNIT	
SUITE 200			PAPER NUMBER	
FORT COLLINS, CO 80525			2638	

DATE MAILED: 10/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/872,271

Applicant(s)

PRATER, JAMES S.

Examiner

Dung X. Nguyen

Art Unit

2638

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 July 2005.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 - 18 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☒ Claim(s) 1 - 17 is/are allowed.  
6) ☒ Claim(s) 18 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 01 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

***Response to Arguments***

1. Applicant's arguments filed on July 05, 2005 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of new reference(s).

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

*(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.*

3. **Claim 18 is rejected** under 35 U.S.C. 103(a) as being unpatentable over Kunieda et al. (US patent # 6,593,805 B2), and further in view of Molnar et al. (US patent # 6,081,566) and Sanderford, Jr. et al. (US patent # 6,111,911).

**Regarding claim 18**, Kunieda et al. discloses (figure 18):

- Oversampling (2201) the input signal (column 8, lines 62 - 67);
- Separating (separate baseband signal component into 2003, 2005, 2207, 2209, column 9, lines 1 - 7) the baseband signal component from the input signal (2201);

Kunieda et al. differs from the instant claimed invention that it does not expressly show:

- Separating the blocker signal component from the oversampled input prior to decimation;
- Detecting the amplitude of the blocker signal component.

However, Molnar et al. discloses:

- Separating the blocker signal component (column 7, lines 5 – 12) from the oversampled input signal (column 16, lines 25 – 31) prior to decimation (column 6, lines 26 – 29).

While, Sanderford, JR. et al. discloses:

- Detecting (column 2, lines 66 and 67) the amplitude (column 3, lines 24 – 27) of the blocker signal component (column 2, lines 62 and 63, it detects the jamming signal component by ASK data modulation technique).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine Kunieda et al.'s teaching, Molnar et al.'s teaching, and Sanderford, Jr. et al.'s teaching as providing the requirements of the instant claimed invention for effecting of raising the minimum detectable signal level as well as lowering the process gain achievable (column 1, lines 19 and 20 of Sanderford, Jr. et al.).

### ***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Smith (US patent application publication # 2003/0021367 A1) discloses a radio receiver.

Freeman et al. (US patent # 6,937,176 B2) discloses an ultrasonic signal acquisition digital beamformer.

Nagle et al. (US patent # 6,813,319 B1) discloses a system and its corresponding method for transmitting digital information using interleaved delta modulation.

Limberg (US patent # 6,771,707 B1) discloses a digital television receiver converting vestigial-sideband signals to double-sideband AM signals before demodulation.

Reber (US patent # 6,393,070 B1) discloses a digital communication device and a mixer.

Art Unit: 2631

Khan et al. (US patent # 6,272,226 B1) discloses an apparatus and its corresponding method for masking audio signals in a distribution system.

Miller et al. (US patent # 5,930,231) discloses a block spectrum receiver for a broadband communication system

Thurston (US patent # 5,668,552) discloses analog-to-digital converters.

***Contact Information***

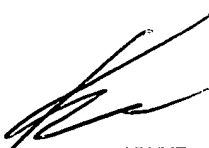
5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dung X. Nguyen whose telephone number is (571) 272-3010. The examiner can normally be reached on Monday through Friday from 8:00 AM to 17:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Vanderpuye, Kenneth N. can be reached on (571) 272-3078. The fax phone numbers for this group is (571) 273-3021.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2600.

DXN

September 14, 2005

  
**KENNETH VANDERPUYE**  
**PRIMARY EXAMINER**